

Serial No. 10/721,179  
Amdt. dated January 6, 2006  
Reply to Office Action of September 7, 2005

Docket No. K-0586

**REMARKS/ARGUMENTS**

Claims 1-21, 23-29, and 31-33 are pending in this application. By this Amendment, claims 1-2, 5-6, 10-11, 14, and 16 are amended, and claim 33 is added. Support for the claims can be found throughout the specification, including the original claims, and the drawings. Withdrawal of the rejections in view of the above amendments and the following remarks is respectfully requested.

**I. Rejection Under 35 U.S.C. §102(b)**

The Office Action rejects claims 10-14, 16, 18-19, 23-29, and 31-32 under 35 U.S.C. §102(b) over U.S. Patent No. 5,925,273 to Sherrill. The rejection is respectfully traversed.

Independent claim 10 recites, *inter alia*, independent first and second coil arrays provided in the air passage and configured to cross the plate between the upper and lower passages, wherein the first coil array comprises a plurality of first coils alternately positioned in the upper and lower passages, and the second coil array comprises a plurality of second coils alternately positioned in the upper and lower passages such that the first and second coils positioned in the upper passage form an alternating pattern, and the first and second coils positioned in the lower passage form an alternating pattern. Independent claim 24 recites, *inter alia*, a first coil array comprising a plurality of first coils, the plurality of first coils comprising a plurality of upper first coils positioned in the upper portion of the case, and a plurality of lower first coils positioned in the lower portion of the case, and a second coil array comprising a plurality of second coils, the

plurality of second coils comprising a plurality of upper second coils positioned in the upper portion of the case, and a plurality of lower second coils positioned in the lower portion of the case, wherein the first coil array is symmetrical to the second coil array about the plate. Sherrill neither discloses nor suggests such features.

Rather, Sherrill discloses a multistage heater assembly, including a first heater element 10a and a second heater element 10b mounted on a plate 14 within a housing defined by a bottom 2 and side walls 4 and 6. Each of the elements 10a and 10b includes a series of electrically continuous coils positioned in two parallel rows which face each other from opposite sides of the plate 14. As shown in Figures 1 and 2 of Sherrill, the first heater element 10a is positioned at an air inlet A of the housing such that incoming air passes across the coils of the first heater element 10a positioned on either side of the plate 14. The second heater element 10b is positioned next to the first heater element 10a, and the air which has been heated by the first element 10a then passes across the coils of the second heater element 10b positioned on either side of the plate 14. Thus, the first and second heater elements 10a and 10b are positioned sequentially in an axial airflow direction within the housing, and the individual coils of the respective heater elements 10a and 10b are not intermingled.

More specifically, as shown in Figure 2 of Sherrill, the first heater element 10a includes three coils sequentially positioned above the plate 14 and three coils sequentially positioned below the plate 14 directly across from those above the plate 14. The second heater element 10b

is positioned next to the first heater element 10a in an airflow direction and includes coils arranged similar to those of the first heater element 10a. Sherrill neither discloses nor suggests that the coils associated with the first and second heater elements 10a and 10b form an alternating pattern in the space either above or below the plate. Rather, Sherrill clearly discloses that the coils of each heater element 10a and 10b are sequentially positioned as shown within the respective element. Thus, Sherrill neither discloses nor suggests first and second coils positioned in the upper passage that form an alternating pattern, nor first and second coils positioned in the lower passage that form an alternating pattern, as recited in independent claim 10.

Further, as shown in Figure 2 of Sherrill, the first heater element 10a has three coils above the plate 14 which are symmetrical to three coils of the first heater element 10a below the plate 14, and thus the upper and lower coils of the first heater element 10a are symmetrical to one another about the plate 14. Likewise, the upper and lower coils of the second heater element 10b are symmetrical to one another about the plate 14. However, the first and second heater elements 10a and 10b are positioned next to each other, and thus the first and second heater elements 10a and 10b cannot be symmetrical to each other about the plate 14, as are the first and second coil arrays recited in independent claim 24, nor does Sherrill disclose or suggest that the individual coils of these elements could or should be rearranged in this manner.

Accordingly, it is respectfully submitted that independent claims 10 and 24 are not anticipated by Sherrill, and thus the rejection of independent claims 10 and 24 under 35 U.S.C.

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§102(b) over Sherrill should be withdrawn. Rejected dependent claims 11-14, 16, 18, 23, 25-29, and 31-32, as well as newly added claim 33, are allowable at least for the reasons set forth above with respect to independent claims 10 and 24, from which they respectively depend, as well as for their added features.

## II. Rejections Under 35 U.S.C. §103(a)

The Office Action rejects claims 1-7 and 9 under 35 U.S.C. §103(a) over U.S. Patent No. 4,700,495 to Drews et al. (hereinafter “Drews”) in view of Sherrill. Based on a telephone conference with the Examiner on November 17, 2005, it was the Examiner’s intention to also reject claims 8 and 17 over Drews and Sherrill. The rejection is respectfully traversed.

Independent claim 1 recites, *inter alia*, wherein the first coil array comprises a plurality of first coils alternately positioned in the upper and lower passages, and the second coil array comprises a plurality of second coils alternately positioned in the upper and lower passages such that the first and second coils positioned in the upper passage form an alternating pattern, and the first and second coils positioned in the lower passage form an alternating pattern. As acknowledged by the Examiner in the remarks regarding independent claim 1, Drews neither discloses nor suggests first and second coil arrays which cross the plate, let alone that such coil arrays include first and second coils which form alternating patterns in each of the upper and lower passages, as recited in independent claim 1. Further, as set forth above, Sherrill fails to overcome the deficiencies of Drews.

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Accordingly, it is respectfully submitted that independent claim 1 is allowable over the applied combination, and thus the rejection of independent claim 1 under 35 U.S.C. §103(a) over Drews and Sherrill should be withdrawn. Dependent claims 2-9 and 20, as well as claims 17 and 19, are allowable at least for the reasons set forth above with respect to independent claims 1 and 10, from which they respectively depend, as well as for their added features.

The Office Action rejects claims 15 and 21 under 35 U.S.C. §103(a) over Sherrill. The rejection is respectfully traversed.

Dependent claims 15 and 21 are allowable over Sherrill at least for the reasons set forth above with respect to independent claim 10, from which they depend, as well as for their added features. Further, it is respectfully submitted that it would not have been obvious to modify the heater assembly disclosed by Sherrill in the manner suggested in the Office Action to overcome the above stated deficiencies. Accordingly, it is respectfully submitted that claims 15 and 21 are allowable over Sherrill, and thus the rejection of claims 15 and 21 under 35 U.S.C. §103(a) over Sherrill should be withdrawn.

### III. Conclusion

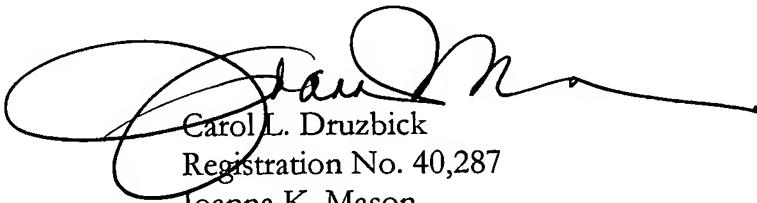
In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned, JOANNA K. MASON, at the telephone number listed below.

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To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,  
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